

**REMARKS**

**Summary of Order For Compliance With 37 CFR § 1.196(b)**

Applicant's Request for Rehearing filed October 22, 2004 is not considered because Applicant's response does not allegedly comply with the stated rules in 37 CFR § 1.196(b) or in 37 CFR § 1.41.50(b). Applicant has submitted an appropriate amendment of the claims instead of Request of Rehearing filed October 22, 2004. Applicant respectfully submits that Applicant's amendment now fully complies with the stated rules in 37 CFR § 1.196(b)(1) or in 37 CFR § 1.41.50(b)(1).

**Summary of Decision on Appeal**

The Board of Patent Appeals and Interferences (BPAI) has reversed each of the three grounds of rejection set forth in the Final Office Action mailed January 15, 2003.

The Decision, however, enters a new ground of rejection under 37 CFR § 1.196(b). Specifically, claims 1, 6, 7, 10-13 and 15-22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the combined teachings of *Christopher* and *Miyagi*.

**Summary of Applicant's Amendment**

In Applicant's amendment, Applicant has amended independent claims 1 and 15 to incorporate the features of dependent claim 7, thereby more particularly pointing out and distinctly claiming the subject matter of the invention. Also, Applicant has canceled claims 6, 7, 13 and 19 without prejudice or disclaimer. Moreover, Applicant has added new claims 23-29 to differently define the invention.

Accordingly, Applicant respectfully submits that claims 1, 10-12, 15-18 and 20-29 are pending for further consideration.

**Applicant's Arguments against New Rejection from Decision on Appeal**

Claims 1, 6, 7, 10-13 and 15-22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the combined teachings of *Christopher* and *Miyagi*.

Applicant respectfully submits that *Christopher* and *Miyagi*, whether taken separately or in combination, do not teach or suggest at least the features of claim 7. Accordingly, Applicant has amended independent claims 1 and 15 by incorporating the features of claim 7 into each of independent claims 1 and 15.

With respect to independent claims 1 and 15, as newly-amended, Applicant respectfully submits that *Christopher* and *Miyagi*, whether taken singly or combined, do not teach or suggest a claimed combination including at least a feature of "said plurality of fins of said heat radiating means form a corrugated cross-section being uniformly shaped in such a way that a long-length of a belt-shaped hoop material is extruded and cut at prescribed length." Applicant respectfully traverses the rejection for at least the following reasons.

With respect to previously presented claim 7 which is now incorporated into independent claims 1 and 15, the Decision concedes at first paragraph on page 8 that *Christopher* does not disclose a plurality of fins for heat radiation. To remedy this deficiency, the Decision further relies on *Miyagi* to allegedly teach the heat radiating fins. However, Applicant respectfully disagrees that *Miyagi* teaches fins forming a corrugated cross-section. In contrast to the present invention where, as shown in FIG. 4 of the present invention for example, a plurality of fins 40'

of the heat radiating means 4' are defined to have a corrugated cross section, *Miyagi* merely discloses a plurality of tooth-shaped heat radiating fins 7 as shown in FIG. 1 of *Miyagi*. That is, as shown in FIG. 4 of the present invention, the fins 40' are formed as a corrugated sheet having spaces defined in each fin whereas the tooth-shaped heat radiating fins 7 of *Miyagi* are solid. Applicant respectfully submits that *Miyagi* neither teaches nor suggests that the tooth-shaped heat radiating fins 7 may be modified to "have a corrugated cross-section," as recited by each of newly-amended independent claims 1 and 15.

Applicant respectfully submits that, compared to the tooth-shaped fins as taught by *Miyagi*, the corrugated fins of the present invention has more adaptability to the required heat radiating amount because the corrugated fins is made of the belt-shape material that enables themselves to be extruded and cut at a prescribed length. Further, Applicant respectfully submits that, compared to the tooth-shaped fins as taught by *Miyagi*, the corrugated fins of the present invention are more flexible to make variety of the fins because the tooth-shaped fins require a mold design change in case of changing shapes of the fins. Moreover, Applicant respectfully submits that, compared to the tooth-shaped fins having the same contact surface area to the circuit board, the corrugated fins of the present invention are better in heat radiation because the corrugated shapes have more surface area.

Thus, for at least the reasons set forth above, Applicant respectfully asserts that the Decision on Appeal has not established a *prima facie* case of obviousness based on the combination of *Christopher* and *Miyagi*. MPEP § 2143.03 instructs that "[t]o establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. In re Royka, 409 F.2d 981, 180 USPQ 580 (CCPA 1974)." Therefore, withdrawal

of independent claims 1 and 15, as amended, is respectfully requested. Further, Applicant respectfully submits that the rejections of claims 10-12, 16-18 and 20-22 should also be withdrawn at least because of their dependencies upon respective independent claims 1 and 15, as amended, and for the reasons set forth above.

### **New Claims 23-29**

Applicant has added new claims 23-29 to further define the invention. Applicant respectfully submits that *Christopher* and *Miyagi*, whether taken singly or combined, do not teach or suggest a claimed combination including at least a feature of “said second radiating pattern includes a grounding electrode for the electrical component,” as recited by new independent claim 23. This feature is fully supported at least by the disclosure at lines 18-23 of page 11 of the specification.

In contrast to the present invention of independent claim 23, *Christopher* merely discloses a first solder connection 121 (allegedly corresponding to the claimed second heat radiating pattern) to conduct heat away from a heat-generating component 119. However, *Christopher* neither teaches nor suggests the first solder connection 121 serves as or may be modified to serve as a grounding electrode. In other words, Applicant respectfully submits that *Christopher* fails to teach or suggest at least the above-described feature of new independent claim 23. Moreover, Applicant respectfully submits that *Miyagi* does not cure the deficiencies of *Christopher*.

Accordingly, Applicant respectfully submits that new independent claim 23, as well as its dependent claims 24-29, are allowable over the prior art of record at least for the reasons set forth above.

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Since Applicant has canceled claims 6, 7, 13 and 19 without prejudice or disclaimer, the rejections of these claims has rendered moot. Without other rejections pending, Applicant respectfully asserts that claims 1, 10-12, 15-18 and 20-29 are in condition for allowance.

**Conclusions**

In view of the foregoing, Applicant respectfully requests reconsideration and the timely allowance of all the pending claims. If there are any other fees due in connection with the filing of this Amendment, please charge the fees to our Deposit Account No. 50-0310.

Respectfully submitted,

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